

FEEDBACK BASED USER INTERFACE FOR MOTION  
CONTROLLED HANDHELD DEVICES

ABSTRACT

A motion controlled handheld device includes a user interface comprising a display having a viewable surface and operable to generate a current image and a gesture database maintaining a plurality of gestures. Each gesture is defined by a motion of the device with respect to a first position of the device. The device includes a motion detection module operable to detect motion of the device within three dimensions and to identify components of the motion in relation to the viewable surface. The device includes a control module operable to track movement of the handheld device using the motion detection module, compare the tracked movement against potential ones of the gestures, determine that the tracked movement does not indicate a unique one of the gestures, and generate feedback reporting that the tracked movement does not indicate a unique one of the gestures using the user interface.